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INDEPENDENCE, CALIFORNIA

AGRICULTURAL CONDITIONS OF INYO COUNTY, CALIFORNIA.

J. S. Cotton. 1905

GENERAL.

Nearly all of the arable land in Inyo County lies in Owens Valley. This valley, which is a little over one hundred miles long, and varies in width from 15 miles in places to as narrow as three in others, lies in the eastern part of the county. It extends from the northern boundary of the county in an almost due southerly direction nearly to the southern boundary. There are approximately 500,000 acres of land, some 200,000 of which are held under patent, lying within it. Scarcely one fifth of this patented area has been brought under cultivation.

The valley is some 4000 feet in altitude, and is bounded on the east by the White Mountains and the Inyo Range, which reach an altitude of about 10,000 feet. On the west it is bounded by the Sierra Nevada Mountains, which rise abruptly to a height of some 14,000 feet. Being practically isolated by these mountainous ranges, the valley has a climate somewhat peculiar to itself. It is seldom that the weather gets very cold; only once or twice has the thermometer gone below zero; and yet it never gets excessively hot, 105 being the maximum. The winters may prove to be very mild; and on the other hand the valley is subject to late frosts that oftentimes destroy the fruits. The average annual precipitation at Independence is 3.82 inches, consequently no crop can be raised except by irrigation.

IRRIGATION.

The water for irrigation purposes is supplied by the streams running from the snow fields of the Sierras, and from the Owens River, which cuts through a low divide from Long Valley in Mono County into the northern end of the valley, and traverses it for two thirds of its length, finally emptying into Owens Lake. This is a large inland lake that at the present time is gradually drying up. In the northern part of the valley there is an abundance of water, and it is wastefully used. As one proceeds down the valley the water becomes scarcer, until by the time the southern end of Owens Lake is reached there is absolutely no water for irrigation purposes.

The U. S. Reclamation Service is making surveys and taking notes and measurements, with a view of eventually placing a much larger amount of land under water. Their entire project if carried out in full would embrace some 300,000 acres. (This estimate is based on the amount under irrigation at the present time, and on the amount of land withdrawn from homestead entry.) It contemplates the building of a storage reservoir in Long Valley, and also the building of a drainage system that will reclaim a large amount of land that at the present time is of very little value, having been spoiled by over-irrigation.

Much of the feasibility of this project may depend on the future value of the land, which in turn may depend on the transportation facilities.

TRANSPORTATION FACILITIES.

At the present time the farmers of the valley are badly handicapped, as they have no adequate facilities for marketing their produce. Their only outlet is the Carson & Colorado Railway, a narrow guage railroad which is very poorly managed, which runs from Keeler north, and connects with the Virginia & Truckee Ry. at Mound House, Nev. The latter connects with the Southern Pacific at Reno. This long, roundabout way makes the freight rates both into and out of the valley very high.

During the past year their difficulties have been greatly augmented by the discovery of gold in the country about 150 miles east of the valley, in Nevada, which has caused a heavy immigration into these new gold fields. The C. & C. RR. was not provided for any such influx of people, and cannot transport all of the supplies needed for that growing community. As a result of this an embargo was placed on all freight except clothing and food. This reacted on the Owens Valley people, and while it helped that class of farmers who had hay to sell, the cattlemen were unable to get their cattle out of the valley, and lost very heavily.

It is hoped that eventually the railroad will be extended from Keeler to Mojave, a distance of 125 miles. This will give the people of Owens Valley a good market for their produce. This, together with the irrigation project, will insure the valley a bright future.

FARMING.

The first settlers were cattlemen who worked their way into the valley some forty years ago. These and the settlers that have entered later have settled along the river and wherever they could secure water for irrigation purposes. On these ranches they raised hay for feeding purposes, while they pastured their cattle in the mountains.

The great majority of the farmers in the valley are very lax in their methods. It has been very easy for them to make a living, as about all they needed to do was to pour the water onto their land and then harvest their crop. They have taken no special pains to level their land, but irrigate by a system of flooding which over-irrigates in spots while other spots in the same field may not be touched. This system of flooding has resulted in many of the lower lands becoming too strongly alkaline for any plants other than salt grass, and if wet enough wire grass. In many instances whole fields have been turned into quagmires, and are unfit for anything but grazing purposes. In a number of instances the writer has noticed fields where the cows grazing in them would be wading belly deep.

On the higher lands back from the river, where the soil varies from a coarse sand of granitic origin to a fine gravel, alfalfa is the main crop. The farmers usually get two or three cuttings, or four to five tons of hay, per acre from these fields, and then turn their stock on them for the rest of the year. On the higher areas where there is not too much alkali these fields last

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Mr. J. H. S

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indefinitely. One field was shown the writer that had been in for 25 years, and according to the owner was producing as well as ever. Another instance was cited of an alfalfa field near Bishop that had been in for over 30 years. On the lower grounds where there is more alkali, and where the ground water probably approaches too near the surface of the ground, the alfalfa fields are much shorter lived, many of them having to be plowed up and renewed every seven or eight years. Whenever these fields are plowed up, it is usually customary to raise a couple of crops of wheat on the land before seeding it down to alfalfa again. Most of the farmers save one or two fields of this land to raise corn and wheat, the two crops being alternated. They never seem to think of seeding these fields down to alfalfa and plowing up an alfalfa field to raise their grain on, but continue their two crop system indefinitely, with a consequent result that they say their land is wearing out. Corn usually yields from one to 1 1/2 tons per acre, and wheat 1 1/2 to 2 tons per acre (crops are expressed in tons instead of bushels).

On the lower ground where there is too much water for alfalfa they raise timothy and clover. The soil in these areas is usually quite black and quite finely divided. In the lowest areas, where it is too wet for these plants, native grasses (mostly wire grass, Juncus balticus?) are grown. Usually there is a considerable amount of redtop in these areas.

These lowest lands are quite strongly alkaline. The farmers in handling these areas are very careful to give the land a good soaking in order to wash the alkali out. It is doubtful if they have sufficient drainage to accomplish this. There are a number of these alkaline places that unless they are continually soaked are too dry for redtop. The farmers do not know what to grow on these areas. Blue stem (Agropyron occidentale) will grow well, but they claim that they cannot get any seed of the plant that will germinate. Some have suggested setting out roots, but that is too big a task.

From what I could glean, Bermuda grass will grow well here, but it is doubtful if it should be sown in this valley.

HONEY.

One of the staple crops of the valley, and one for which it is well known, is honey. In riding from one end of the valley to the other, it is noticeable that nearly everyone has a few swarms of bees, while it is not uncommon to see fifty or 100 stands in the yard. Before the sheep became so abundant, the main source of their honey was the sage brush and various bushes growing on the mesa. The wild flowers also played a very prominent part in furnishing honey. At the present time the main supply of honey is from alfalfa and occasional patches of sweet clover.

FRUITS.

Fruits grow successfully in the valley, but the late frosts make the fruit crop, outside of apples and some of the later blooming and more hardy varieties, too undertain to be profitable from a business standpoint.

STOCK INDUSTRY.

The most important industry is stock raising. Nearly all of the farmers in the valley have a small band of from 50 to 300 head of cattle. In the fall and winter months the cattle are run on the alfalfa fields, native meadows, and salt grass pastures. Hay is fed to the beef cattle and to the stock cattle that are thin and in poor condition.

Nearly all the farmers pasture their alfalfa fields very heavily, but seem to lose very little stock from bloating. One reason why there is so little loss from bloat is that salt grass is quite abundant in these fields, having been given a chance to work its way in through the overgrazing of the alfalfa. The cattle are very fond of this grass, and eat it readily with the alfalfa, which tends to prevent their filling up too rapidly on the alfalfa.

Another reason is that the cattle are put on in the fall, when the fields are dry, and kept there until spring when the alfalfa begins to grow. As soon as the young succulent alfalfa begins to grow it is necessary that the stock be taken out immediately, or there will be heavy losses.

The salt grass and native meadow pastures furnish the greater part of the feed for the stock. In some cases these farmers, not having permits to the Reserve, pasture their cattle on the lowland meadows during the entire season, but this is usually done with considerable loss.

LOSS FROM DISEASE.

As soon as the warm weather begins many of the cattle on these places begin to die. It is not altogether certain what the disease is. . The majority of the farmers consider it to be blackleg or anthrax. There are a few that think it to be a kind of swamp fever. The state authorities at first pronounced it to be blackleg, but I understand that the State Veterinarian thinks it probably is not that disease, altho he does not know what it is.

Many of the farmers claim that vaccination does no good, while others claim that it stops the disease. Mr. Webb of Independence claims that he watched two bunches of cattle that had been mixed, one of which had been vaccinated, while the other had not. He claims that the losses from this disease were as great in one bunch as in the other. From what I can learn cattle brought up in the valley and on these meadows are not so subject to the disease as outside cattle. The greatest loss seems to be among the young cattle.

The farmers have learned to avoid this disease, and their losses at the present time are comparatively light. As soon as the warm weather begins they turn their cattle out onto the brush (or spring range) and the trouble stops immediately. While in Independence I had an opportunity to notice this. Mr. Robinson, one of the cattlemen, was called away, and gave orders that if he were not at home by a certain date his men were to turn the cattle out onto the brush or spring range. Before this time came the cattle began to die, and two day's before the time set eight head had been lost. The

* This word marked out, in original.

cattle were immediately turned out on the spring range, with the result that ~~no~~ no more cattle were lost. This is the invariable experience, except that occasional animals are lost within the first day or two after turning out.

Mr. Charles Rickey, manager of the Rickey Cattle Company, says that he does not lose any cattle from this disease. His reason is that he keeps working his cattle all of the time, and changes them from one place to another every few days. He considers that the main trouble with the small cattle men is that they do not give their cattle proper attention and keep them moving. He is undoubtedly right.

ALKALIED CATTLE.

I had no opportunity to investigate this problem, as there is no serious trouble from this cause except during the summer season. During this season of the year those cattle that are kept in the valley will congregate in the pools where they can fight flies by splashing the water over themselves. While standing in the water they will take a sip of the water occasionally, and thus after awhile get used to and prefer the alkali water to clear water---in other words, form the alkali habit, and finally become alkalied. These cattle gradually get thin and their hair turns yellow, an alkalied animal being easily recognized by the yellow blotches on it. Such an animal cannot be fattened until all of the alkali is out of its system.

This problem will be investigated further during my visit into Long Valley, where it is usually quite prevalent during the summer season.

SPRING RANGE.

The land lying between the irrigated fields and the foot of the mountains is used as spring range. The feed here consists mainly of various bushes and annual wild flowers. The wild flowers were mainly a species of Gilia, some two or three species of the borage family, and some plants of the composite family. The bushes that the cattle seem to prefer are as follows: *Grayia spinosa*, *Atriplex confertifolia* (?), and *Sarcobatus vermiculatus*, on the lower non-alkaline areas *Eurotia lanata*, *Ephedra nevadensis*, *Artemisia tridentatus*, *Artemisia canescens*, *Tetradymia spirescens*, and *Hymenoclea salsola*, on the general mesa, close to the foothills. *Coleogyne sonosissima* and *Kuntzia (Purshia) tridentata* also furnish a large amount of browse. There is almost no grass on the mesa, and it forms absolutely no factor as spring feed.

Formerly the cattlemen had a good deal of trouble over their spring range. The tramp sheep, in their migrations from Bakersfield through Inyo County north into Mono County and into Nevada in the spring (from the middle of May until the middle of June), and on their return south to Bakersfield in the fall, get practically all of the spring feed outside of the reserve. The difference in the amount of feed within the reserve line, where the sheep are prohibited, and without the reserve line, is very marked.

At one time the cattle men were deprived of this local feed, which caused them considerable hardship. At the present time they are issued spring permits, which enable them to get along very well indeed.

The few cattlemen at Lone Pine, however, are having serious trouble. Haed Ranger White of the southern district--south of the Mt. Whitney Military Reserve--for some reason is unable to provide rangers to protect the spring range from the invasion of the sheep, and the feed is so badly cleaned out that it is hard for these men to get feed for their cattle. . They also are troubled from not being able to get into the reserve early enough. Long before they are allowed to go into the mountains the flies begin to bother the cattle so that the stock wander back down along the river again, where there is no feed. They maintain that there is no reason why they should (not) be allowed in the reserves much earlier than July first.

SUMMER PASTURAGE.

The majority of the cattlemen of this valley range their cattle in the high mountain meadows during the summer months.

The cattle on the Rickey ranch (some 5000 head) are all taken to Long Valley and north for summer range. Further information will be given concerning this company after the trip planned for July and August.

The remainder of the cattle, most of whom have been refused permits on the reserve, are pastured in the valley, where they are subject to heavy loss; or in the neighborhood of Long Valley, Mono County.

LOCAL SHEEP.

There are a few bands of local sheep in the valley. These are handled in about the same manner as the local cattle, except that they are not allowed within the reserve, and are compelled to work into Mono County for summer feed.

Mr. P. J. Giraud, secretary of the California Wool Growers' Association, formerly a tramp sheep man, has purchased a ranch of some 2000 acres, which is partly within the reserve, where he has a good mountain meadow for grazing, and also a good farm for alfalfa hay. He runs about 2000 head of sheep on this range.

These local sheep men think they ought to be allowed on the reserve as much as the cattle men. They maintain that there is lots of feed going to waste on the reserves that the cattle men cannot get at. Mr. Giraud has offered to prove to the authorities in charge that sheep could be grazed on the reserve without damage, if they would allow him to graze a band of sheep on it and send an inspector along to watch the results. He is willing to take the sheep off if the inspector decides that they are doing damage. He maintains that sheep if properly handled will not injure young trees any more than cattle. There is probably considerable truth in this statement. However, that would remain to be proven.

THE PIPER RANCH.

Mr. Piper has two ranches about 16 miles apart in Fish Lake Valley. This valley lies mostly in Mono County and in Nevada, but the southern part of it, together with Mr. Piper's headquarters, lies in Inyo County. These ranches embrace about 4000 acres, of which 800 are under irrigation and in alfalfa. Mr. Piper gets two cuttings of hay, or about 5 ~~(5?)~~ tons per acre, from this land.

When he first came into the valley Mr. Piper used to run his cattle on the open range. Of late years he has not used the open range at all, as he found that it cost more to look after them and care for them than it did to run them on the alfalfa fields.

At present he is entirely out of the cattle business, as it is much more profitable for him to sell his hay. During the past season he has sold all his hay from the home ranch at $25 per ton, and $20 per ton on the lower. This hay is hauled to Tonapah, a distance of about 75 miles, where it sells for $60 per ton, and to Gold Field, where it sells for over $100 a ton.

GENERAL.

Outside of the cultivated land in Owens Valley, the Piper ranch, the Gilbert ranch, a badly run down alfalfa ranch in Fish Lake Valley, and a ranch or two in Salt Wells Valley, the remainder of the country is practically a desert. It is true that there is some good feed on some of the numerous mountain ridges, but usually water is soscarce that these ridges are practically of no value. It is quite possible that some day some of the valleys will be irrigated by means of artesian wells.

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